WHAT IS CLAIMED IS:

- 1. A method of loading several like storage cars with bulk material, the storage cars being coupled together to form a freight train, and each storage car comprising a bottom conveyor band for conveying the bulk material in a conveying direction to a transfer conveyor band projecting from a front end of the storage car, the bulk material being conveyed at a conveying speed mode from a bulk material delivery point by the bottom and transfer conveyor bands arranged successively in the conveying direction, comprising the steps of
- (a) first filling a first one of the storage cars with the bulk material by reducing the conveying speed mode of the bottom conveyor band in the first storage car to a bulk material storing speed mode while the transfer conveyor band of the adjacent storage car fills the first storage car, the storing speed mode of the bottom conveyor band in the first storage car being automatically adjusted in response to a measured amount of the bulk material accumulating in a pile in the first storage car so that the first storage car is filled to a maximal height, and
- (b) after the accumulated pile of bulk material in the first storage car has reached a forward end position, automatically reducing the conveying speed mode of the bottom conveyor band in the storage car adjacent to, and

rearwardly of, the first storage car in the conveying direction to the storing speed mode.

- 2. The method of claim 1, comprising the further step of emptying bulk material on the transfer conveyor band in the adjacent storage car into the first storage car while the conveying speed mode of the bottom conveyor band in the adjacent storage car is reduced to the storing speed mode.
- 3. The method of claim 1, comprising the further step of measuring the amount of the accumulating pile of bulk material by a contactless sensing of the height of the pile.
- 4. The method of claim 1, comprising the further step of sensing the forward end position of the pile of bulk material.
- 5. The method of claim 1, comprising the further step of wirelessly transmitting the loading condition of the storage car being filled with the bulk material to a display of a control device controlling the speed of the conveyor bands.